

8.—CONTRIBUTIONES FLORAE AUSTRALIAE OCCIDENTALIS N<sup>o</sup>. IX.

By CHARLES A. GARDNER.

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## CASUARINACEAE.

*Casuarina Dielsiana* Gardner sp. nov.

Arbor dioica, ramis erectis; ramulis tenuibus, erectis, flexuosis; internodiis striatis numero non definitis; dentibus 6, deltoideis, appressis, erectis; amentis ♂ nondum cognitis; strobilo ramulum gracilem abbreviatum terminante, ellipsoideo-subglobose saepe recurvato 6-sticho; bractea lata, crassa, truncata, apice dilatata; bracteolis longe exsertis, integerrimis, ovatis, pallidis, dorso striatis; achaenio atro-fusco, ala obliqua.

Dioecious. An erect tree of 5-7 metres in height, the branches erect, the branchlets slender, flexuose, bright green, with indefinite internodes. Scale-leaves in whorls of 6, erect, appressed, acutely deltoid, hyaline and white in the upper half, the internodes finely striate.

Cones on short slender lateral branches, which are usually spreading or recurved, ellipsoidal to subglobose in outline, 6-stichous, glabrous; bracts broad and thick, almost quadrangular at the truncate apex, and embracing the bracteoles; bracteoles prominently exserted, entire, ovate, obtuse, pale grey in colour, irregularly striate on the dorsal surface. Achenes oblong-cuneate, dark brown with a transparent oblique wing.

Summit of Mount Singleton on the southern boundary of the Austin District, in red stony soil, W. E. Blackall and C. A. Gardner (2218) 9th July, 1931.

Branchlets 7-16 cm. long; internodes mostly 7-8 mm. long; cones 2-3 cm. long; bracteoles 3.5 mm. broad.

The species has a close affinity to *Casuarina Huegeliana* Miq., from which it differs in the number of teeth to the whorl, the prominent subtending bracts which are as wide as the two bracteoles which they support, and proportionately thick, as well as in the shorter slender flexuose branchlets and striate bracteoles.

I have collected specimens of this species from near Mullewa, in which the number of teeth or scale-leaves is constantly seven, and the cones broader.

The Type is Gardner 2218 in the State Herbarium.

*Casuarina tessellata* Gardner sp. nov.

Frutex dioicus, ramis rigidis erectis; dentibus 9, appressis, ovatis, rigidis; internodiis valde sulcatis; amentis ♂ nondum cognitis; strobilo erecto, cylindrico, sublaeve, ramulum terminante; bractea lata, truncata, apice triangulari, in cuspidem deciduam producta; bracteolis inclusis, truncato-triangularibus, angustis fissuris tessellatis; achaenio atro-fusco, ala pallida obliqua.



Dioecious. An erect shrub of 3-5 metres in height, the branches rigid and erect; scale-leaves in whorls of 9, erect, appressed, ovate, rigid; internodes deeply sulcate. Cones erect, terminating short erect branches, cylindrical, almost smooth, dark grey in colour; bracts broad, truncate, triangular at the apex with a deciduous setaceous point, finely fissured; bracteoles not exerted beyond the bracts, triangular-truncate, and along with the bracts presenting a uniform tessellated or finely fissured surface; achenes black, the oblique wing hyaline.

Branchlets 9-12 cm. long; internodes 9-11 mm. long; cones 3.5-4.5 cm. long, 1.5-1.9 cm. diameter; bracteoles 2.5 mm. broad.

Near the southern boundary of the Austin district, on the northern slopes of Mount Singleton, forming dense thickets in red loamy soil. W. E. Blackall and C. A. Gardner, 9th July, 1931.

This species is closely related to *Casuarina Helmsii* Ewart and Gordon, but differs from that species in the distinctly sulcate branchlets, the cones not sessile, but always on distinct peduncle-like branches, and the thick and prominent bracts, while the bracts of *C. Helmsii* are so thin that the apertures formed by the opening bracteoles appear continuous.

The Type is Gardner 2217, in the State Herbarium, Western Australia.

#### PROTEACEAE.

##### *Grevillea scabrida* Gardner sp. nov.

Frutex intricato-ramosus; foliis linearibus, 5-nervis, marginibus incrassatis, verrucoso-scabriusculis, apice mucronulato, saepe recurvato; racemis plerumque terminalibus attenuatis, umbellatis; floribus flavis; pedicellis pilosis, crassis; perianthio parvo, angusto, sub limbo globoso recurvato; glandula hypogyna inconspicua; ovario stipitato, pilis adpressis vestitis; stylo glabro, disco obliquo laterali.

An erect shrub leafy in the upper portions, densely and intricately branched, the branches and branchlets glabrous. Leaves linear, tapering into a short petiole, 5-nerved, the margins revolute and nerve-like, the five nerves and the nerve-like margins scabrid with minute tubercles, the apex mucronate-acute, often recurved. Racemes short, sub-umbellate, terminal or rarely in the upper axils, the flowers yellow or greenish; rhachis very short, with appressed hairs; pedicels rather thick, sparsely pubescent with appressed hairs; torus straight; perianth narrow, short, revolute under the globular limb, the tube not dilated, straight, sparsely appressed-pubescent outside, bearded inside in the upper portion with short and dense woolly hairs; hypogynous gland very small and thin, semiannular; ovary distinctly stipitate, appressed-pubescent; style glabrous, short, with an orbicular oblique stigmatic disc. Fruit ovoid-elliptical, pale, smooth, with a long beak formed by the persistent style.

Leaves 3.5-4.5 cm. long, 1-1.5 mm. wide; racemes 1 cm. diameter; pedicels 3-4 mm. long; perianth 2.5 mm. long; style 3.5 mm.; fruit 8 mm. long without the persistent style; base 4 mm. wide.

At the southern boundary of the Austin District, near the northern base of Mount Singleton, in red loamy soil in stony ground, fl. m. July. W. E. Blackall and C. A. Gardner, 9th July, 1931.

This species belongs to the Section *Lissostylis*, but differs from all other species of this Section in the appressed-pubescent ovary. It is closest to



*G. brachystachya* Meissn., from which it differs in the shape and vestiture of the leaves, appressed-pubescent perianth, and the presence of the small hypogynous gland.

The Type is Gardner 2210, in the State Herbarium, Western Australia.

***Grevillea Blackallii* Gardner sp. nov.**

Frutex erectus; foliis lineari-teretibus, rigidis, utrinque angusto-sulcatis, junioribus tomentosus, adultis glabris; racemis paucifloris (2-5), sessilibus, axillaribus vel e ramulis lateralibus; pedicellis crassis, tomentosus; perianthio rubro extus albo-tomentosis, intus glabro, fauce breviter pilosa excepta, sub limbo globose-revoluto; toro obliquo; glandula hypogyna semilunari; ovario subsessili; dense tomentoso; stylo glabro; stigmatibus obliquo laterali; fructu nondum cognito.

A small bushy shrub, the branchlets  $\pm$  erect, 30-45 cm. in height, and as much or more in diameter. Leaves erect, rigid, linear-terete, narrowly sulcate along each side, otherwise terete and smooth, tomentose when young, but becoming glabrous with age, the apex rigidly pungent. Racemes in the axils of the lowest leaves, or lateral below the leaves, sessile, reduced to clusters of 2-5 flowers; pedicels rather stout, densely tomentose; perianth densely tomentose outside with crisped woolly hairs, the tube somewhat dilated below the middle, revolute under the globular limb, glabrous inside except for some short crisped hairs on the lower side in the throat; torus oblique, the gland side the shortest; hypogynous gland prominent, semilunar, thin; ovary almost sessile, attached near the upper margin of the torus, densely tomentose-villous with white hairs; style glabrous, elongated, the stigmatic disc broad, orbicular, obliquely lateral; fruit not seen.

Leaves 7-10 cm. long, 1 mm. diameter; pedicels 5 mm. long; perianth 9 mm. long; style 1.6 cm. long.

Austin district, in red sand with *Triodia* and *Keraudrenia integrifolia*, near Payne's Find, fl. m. June-July. W. E. Blackall and C. A. Gardner, 10th July, 1931.

The species is named after William Edward Blackall, M.B. M.R.C.S., L.R.C.P., in recognition of his services to Western Australian botany, and to whom the author feels especially grateful for assistance whilst collecting and diagnosing specimens.

The affinity of this species is with *Grevillea haplantha* and its allies. It approaches *G. haplantha* F. v. M. in its floral structure, but differs in the tomentose indumentum of the perianth externally, and in the paucity of hairs inside, and more particularly in the leaf itself, this being, in *G. haplantha*, broadly channelled or doubly grooved underneath, and distinctly compressed, while the style is pubescent or villous. There are several specimens of *G. haplantha* in the State Herbarium, which show some variation in size and venation of the leaf. The species is a polymorphic one, in which the Avon district forms have a leaf with from 3 to 5  $\pm$  distinct nerves on the upper side, while the south coastal and typical form has a nerveless upper surface. The new species is also closely allied to *G. Yorkrakinensis* Gardner, which has a similar torus (described in error as straight), but the leaves of *G. Blackallii* are considerably longer and terete. The three species may be contrasted as follows, including the Avon district form of *G. haplantha* F. v. M.:



- A. Leaves distinctly flattened, doubly grooved underneath by the closely revolute margins; style hairy or pubescent.
- a. Leaves nerveless above .. .. . G. haplantha F. v. M.  
(typical form).
- b. Leaves with 3-5 prominent longitudinal nerves on the upper side .. .. . G. haplantha F. v. M.  
(Avon district form).
- B. Leaves terete or subterete, narrowly sulcate, style glabrous.
- a. Perianth appressed-pubescent, small, sparsely hairy inside with erect hairs; leaves 6-12 mm. long, the sulcae ventral .. .. . G. Yorkrakinensis  
Gardn.
- b. Perianth tomentose outside; sparsely hairy in the throat; sulcae lateral, opposite .. .. . G. Blackallii Gardn.

The Type is Gardner 2224, in the State Herbarium.

*Grevillea stencstachya* Gardner sp. nov.

Frutex, ramis intricato-divaricatis; foliis triternato-pinnatis, segmentis teretibus, pungentibus, divaricatis; racemis gracilibus, glabris, elongatis; perianthio erecto, glabro, sub limbo ovoideo revoluto, segmentis angustis; toro plano; glandula hypogyna nulla; ovario sessili, tenuiter piloso; stylo tenui incrassato sub cono stigmatico erecto; fructibus nondum repertis.

An erect bushy shrub of 60-90 cms. in height, with divaricate intricate branches, the bark grey, smooth. Leaves intricate, once, twice, or thrice ternately divided with rigid divaricate pungent pointed segments, the segments terete, smooth. Racemes slender, glabrous, axillary, elongated and comparatively few-flowered, the rhachis slender, glabrous. Pedicels slender, glabrous; perianth erect, the buds clavate, the limb ovoid-elliptical, segments glabrous inside and out, narrow; torus straight; hypogynous gland absent; ovary sessile, nearly globular, sparingly villous; style, obliquely or almost laterally attached, folded above the base, slender, but obpyramidally thickened upwards under the erect stigmatic cone, without any constriction below the cone.

Leaves 2-4.5 cm. long, the ultimate and primary segments about 1 cm. in length; racemes 5-8 cm. long, the flowers scattered or subverticillate; pedicels 2.5 mm. long; perianth 3 mm. long, yellow; style equal in length to the perianth segments.

Austin district: 16 miles west of Meeberrie Homestead on the Murchison River, in red sand in thickets of *Grevillea eriostachya* Lindl., W. E. Blackall and C. A. Gardner, 24th August, 1931.

This species has an affinity to *Grevillea paradoxa* F. v. M., but differs essentially in its few-flowered racemes, slender glabrous rhachis, and absence of the hypogynous gland. Amongst those species of *Anadenia* which do not possess a hypogynous gland it is perhaps closest to *G. stenocarpa*, which has an almost similar floral structure, but the leaves are entire, flattened and striate, while those of *G. stencstachya* are always divided and smooth.

The type is Gardner 2537 in the State Herbarium.



**Hakea bucculenta** Gardner sp. nov.

Frutex erectus; foliis anguste-linearibus, acutis, erectis, uninerviis, rigidis; racemis elongatis, densifloris, axillaribus; floribus rubris; glabris; pedicellis brevibus; perianthio angusto sub limbo ovoideo revoluto; toro plano; glandula hypogyna ampla semilunari; ovario sessili, glabro; stylo elongato; cono stigmatico angusto, paulum obliquo; fructu ovoideo basi globuloso apicem versus compresso, laeve; seminis ala margine superne decurrente.

A shrub of 1.5-2 metres in height, erectly branched, with the appearance of the narrow-leaved forms of *Hakea multilineata* Meissn., the bark smooth. Leaves sparse, narrow-linear, entire, rigid, erect, acute, flat 1-nerved, the margins thick, tapering towards the base but expanded again at the base itself. Racemes axillary, enclosed before development within imbricate scarious brown bracts, lengthening into narrow spike-like racemes with numerous crowded scarlet flowers, quite glabrous. Pedicels short; perianth-tube narrow, revolute under the ovoid limb; torus straight; hypogynous gland thick, semilunar; ovary sessile, glabrous; style elongated, more than twice as long as the perianth, glabrous, the stigmatic cone narrowly conical and somewhat oblique. Fruit ovoid, the valves flattened in the upper portion, much swollen below into a globular base giving the fruit the appearance of two basal cheeks, smooth, grey, not beaked; seeds black, the wing decurrent only along the upper margin of the nucleus.

Leaves 12-17 cm. long, 1.5-2 mm. wide; racemes 8-9 cm. long; pedicels 1.5 mm.; perianth 5-6 mm.; style 1.7 cm. long; fruit 2 cm. long, 1.7 cm. broad in the lower half, 1.2 cm. wide above the thick base, the valves 3 mm. thick.

Austin district: In red sand in thickets, 30 miles north of the Murchison River to the south of Shark Bay, W. E. Blackall and C. A. Gardner, 29th August, 1931.

The affinity of this species is with *Hakea multilineata* Meissn., from which it differs in the narrower 1-nerved acute leaves, differently shaped hypogynous gland, sessile ovary, and differently shaped fruit.

The Type is Gardner 2571, State Herbarium, Western Australia.

## PAPILIONACEAE.

**Oxylobium Bennettsii** Gardner sp. nov.

Frutex erectus; foliis oppositis oblonge-lanceolatis, coriaceis, reticulatis, mucronatis, basi rotundatis; racemis elongatis plerumque terminalibus; pedicellis tenuibus; calyce glabro, lanato-ciliato; floribus aurantiaceis; ovario villosa, stipitato; stylo brevi, incurvo; legumine lignoso, ovoideo, acuto, glabro, apice dehiscente; seminibus in textura fibroso-spongiosa insertis.

An erect branching shrub 3-12 decimeters in height, glabrous except the margins of the calyces and the ovary, the branchlets terete or slightly angular, purple in colour. Leaves opposite, lanceolate-oblong, coriaceous, obtuse with a small black mucro, prominently reticulate above with raised nerves, lustrous, paler underneath, the secondary nerves anastomosingly reticulate, shortly petiolate, the base rounded and obtuse, sometimes subcordate; stipules linear, straight, rigid, rather prominent. Racemes terminal and sometimes also axillary, elongated, forming leafy panicles, the rhachis angular; pedicels irregularly verticillate, slender, thickened upwards under the calyx; calyx-tube broadly campanulate, the lobes somewhat shorter than the tube, all woolly ciliate on the margins, the woolly hairs extending some distance inside, the upper lobes broad, rounded, united almost to the apex



in an almost truncate emarginate upper lip with crenulated margins, the lower lobes rather shorter, ovate-deltoid and sub-acute; standard orbicular-reniform, large, orange-scarlet with a yellow spot near the apex of the claw; wings oblong-falcate; keel obtuse, deep purple. Ovary villous, distinctly stipitate, the stipes lengthening in fruit; style very short, incurved, stout; ovules 6-8. Pod ovoid-oblong, almost woody, hard and glabrous, dehiscing in the upper half only; seeds usually 2, oblong-reniform, black, smooth, embedded in a stringy tissue which traverses the whole interior around the seeds.

Leaves 4-5 cm. long, 1.6 cm. broad near the base; petiole 3-5 mm.; racemes up to 12 cm. long; pedicels 5-7 mm.; calyx 4.5 mm.; upper lip 1.8 mm.; lower lobes 1.5 mm. long; standard 10-12 mm. diameter; pod 1.0 cm. long, 4.5 mm. diameter.

Stony clay soil, Ravensthorpe Range, fl. m. Novem.-Decem. A. J. Milesi and C. A. Gardner, 10th November, 1935.

This species is closely related to *Oxylobium graniticum* S. Moore, but differs essentially in the shape of the leaf which is always obtuse and broad at the base, whereas in *O. graniticum* the lamina always tapers gradually into the petiole. The branchlets are not prominently angular, the rachis is glabrous, and the style shorter. The pods of the two species are very different. Those of *O. graniticum*, which have not been described, are coriaceous, not woody, ovoid, and obliquely mucronate, turgid with an indented upper suture, and without internal pith, while those of *O. Bennettsii* are smaller, acute, and distinctly woody, with a stringy pith.

I have named this toxic species after Harold William Bennetts, D.V. Sc., who has collaborated with me on several investigations made with toxic species, and past President of the Royal Society of Western Australia.

The Type is in the State Herbarium, Western Australia.

#### DILLENACEAE.

##### *Hibbertia miniata* Gardner sp. nov.

Frutex erectus, ramis tomentoso-pubescentibus; foliis oblanceolatis, obtusis, tomentoso-pubescentibus, adultis supra glabrescentibus; marginibus recurvis; floribus aurantiaco-rubris, terminalibus aut in capitulis simulantibus; pedunculis brevibus; bracteis magnis, acutis, glabro-scariosis; sepalis extus sericeo-pubescentibus; petalis profunde 2-lobatis; staminibus circum carpella dissitis, filamentis tenuibus, antheris atro-violaceis, oblongis, vertice obliquis foraminibus dehiscentibus; carpellis 5, sericeo-villosis, biovulatis.

An erect shrub of 30-45 cm. in height, the branches stout, erect, dense, the branchlets erect, the plant almost globular in outline. Leaves oblanceolate, sessile, tapering towards the base, obtuse, tomentose-pubescent with grey  $\pm$  appressed hairs, becoming glabrous above in the older leaves, the margins recurved, becoming revolute upon drying, the midrib prominent beneath, impressed above. Flowers large, terminal, solitary or two or three together, shortly pedunculate; bracts broad, scarious, chestnut-brown, ovate to ovate-lanceolate, acute, concave, glabrous, shining; peduncles silky-pubescent, very short; sepals ovate-lanceolate, silky with a white appressed pubescence, acute; petals large, orange-red, obovate, deeply 2-lobed; stamens numerous, situated all round the carpels without staminodia, the filaments slender, white, anthers oblong, purple-black, dehiscing in oblique terminal slits; carpels 5, silky, 2-ovulate.

Leaves 3-3.5 cm. long, 4-7 mm. broad; bracts 1-1.2 cm. long; sepals 1-1.2 cm. long; petals fully 2 cm. long, 1.5 cm. broad, usually lobed to the middle.



Between Chittering and New Norcia, in dry gravelly soil in woodlands of *Eucalytus marginata* and *E. redunca* var. *elata*. fl. m. July-August, E. & C. A. Gardner, July 1934.

This species belongs to the section *Cycladenia*, series *Bracteatae*, but the flowers are scarcely sessile, and the bracts are deciduous, although these features, together with the size of the bracts, would appear to justify this inclusion. It has a close affinity to *H. quadricolor* Domin, *H. Mylnei* Benth., and *H. argentea* Steud. From *H. quadricolor* it is to be distinguished by the absence of staminodia, in habit, the number of carpels, pedunculate flowers and revolute leaves; from *H. Mylnei* (which I have not seen) it can be distinguished by the silky-pubescent sepals, the absence of staminodia and the number of carpels, while the silky carpels, which are 5 in number, and the absence of staminodia serve to distinguish the plant from *H. argentea*. It also differs from all of the above in the colour of the flowers and the purple anthers.

All of the *Cycladenia-Bracteatae* so far examined have anthers which dehisce by terminal oblique pores, although in some the pores are longer and more oblique than in the species described above. This character, which has not been referred to previously, may be found to be constant for the *Bracteatae*. It brings the genus *Hibbertia* still closer to *Wermia*, which differs from *Hibbertia* principally in this character. This feature is not readily noticeable in boiled flowers, since through the action of hot water the pores close, but it is at once apparent in the living and dried specimens, and the writer's attention was directed to it in the living plant of *Hibbertia miniata* by reason of the marked contrast between the deep purple exterior of the anther, and the white interior of the thecae. These deep purple anthers are quite unlike those of any *Hibbertia* known to me, by reason of their colour.

The type specimen is in the State Herbarium, Western Australia.

## VIOLACEAE.

### *Hybanthus cymulosus* Gardner sp. nov.

Frutex erectus; foliis lanceolatis, flaccidis; cymis divaricatis; floribus magnis, violascentibus; petalis supernis quam sepala brevioribus, petala infima multo longiore ad basin saccata; antherae appendice lata aurantiaca.

An erect shrub of 60-90 cms. in height, with erect and spreading stems and almost divaricate branches, the bark pale, thin, but corky. Leaves mostly alternate, narrow-lanceolate to almost linear, soft, acute, tapering towards the base, uninerved, entire; stipules minute. Flowers large in axillary divaricate cymes consisting of from three to several flowers, the terminal flower soon deciduous; bracts similar in outline to the leaves but smaller; bracteoles small, linear, with recurved apices. Sepals united at the base, lanceolate, acuminate, three-nerved, the two lower sepals smaller and narrower than the three upper ones. Petals pale violet, the four upper ones ovate-oblong, obtuse, shorter than the sepals, fimbriate-ciliolate; lowest petals cuneate-obovate with a broad claw, retuse, saccate or gibbous at the base and bearded above the cavity, with two folds or callous ridges united into one above the claw of the petal; anthers subsessile, the filaments very short, the connective produced into an orange-coloured obovate retuse appendage as long again as the anther



cells; style flattened, somewhat falcate, slightly exceeding the connective appendages. Capsule globular, black, slightly exceeding the calyx, with usually one flat minutely granular seed.

Leaves 2-4 cm. long, 2-3 mm. wide; cymes 3 cm. long; flowers 1-1.3 cm. long; sepals 3-4 mm. long; upper petals slightly shorter; lowest petal 1-1.3 cm. long.

Austin district, at the northern base of Mount Singleton, in red stony soil, fl. m. July, in shady spots. W. E. Blackall and C. A. Gardner, 9th July, 1931.

The species is close to *H. floribundus*, from which it differs in the much larger flowers (the lowest petal being quite as large as that of *H. calycinus*), the lanceolate-acuminate sepals, and the absence of spurs to the lower stamens, as well as in the distinctly cymose inflorescence. It differs from *H. enneaspermus* in the lateral and upper petals being all similar and shorter than the sepals, and in the inflorescence.

The type is Gardner 2212, in the State Herbarium.

#### MYRTACEAE.

##### *Eucalyptus Stoatei* Gardner sp. nov.

Arbor erecta; ramulis acuto-angulatis; foliis alternis obtusis, mucronatis, ovato-oblongis; pedunculis angulatis axillaribus, floribus solitariis anthesim pedicellis non manifestis; calycis tubo costato; operculo conico-hemisphaerici; staminibus ante expansionem incurvis; fructu coccineo pyriforme profunde sulcato, valvis 3, inclusis.

An erect tree of 7-10 metres with smooth green-grey thin bark, the branches erect, dense, the branchlets acutely angular. Leaves mostly ovate-oblong, almost symmetrical, thickly coriaceous and rigid, dark green and shining, drying pale, alternate, obtuse but mucronate, the midrib distinct, the secondary nerves irregular, forming an angle of 45 degrees with the midrib, the intramarginal nerve 1.5 mm. from the margin, petiolate, the petioles angular. Peduncles axillary, solitary, recurved, angular, broadened and thickened upwards, bearing a solitary flower, the pedicel not evident before anthesis, the calyx tube gradually tapering towards the base; calyx-tube turbinate-pyriform in outline, deeply and irregularly ribbed, four of the ribs usually more prominent than the others, straight or curved, scarlet when in bud, flower and fruit, but drying brown; operculum widely and obtusely conical, ribbed, the broad umbonate apex smooth, constricted at the commissural line; filaments rich yellow in colour, incurved, but not inflected in the bud, angular, smooth; anthers ovoid-oblong, opening in longitudinal slits, the filament attached near the base, the gland dorsal; style very short and thick. Fruit pyriform, decumbent, tapering into an angular pedicel, deeply and irregularly ribbed, the number of ribs usually about 12, of which the principal are often branched towards the summit and rounded over the top, smooth between the ribs; disc narrow, capsule deeply sunk with three deeply included subulate valves; fertile seeds black, angled,  $\pm$  pyramidal, with an irregular wing.

Leaves 8-11 cm. long, the lamina 6-8 cm. long, 2.2-3.6 cm. wide; peduncles 2-3 cm. long in flower, 4-5 cm. long in fruit; calyx-tube 3-3.3 cm. long, the operculum 1 cm. long; fruit 4-4.5 cm. long (including the pedicel), 3 cm. diameter in the broadest part, the orifice 9 mm. wide.



Eyre District: Bandalup Creek, near Kundip. K. F. Dureau and J. E. Harrison, June, 1935.

The species is a very distinct one, having no close affinities, and belongs to the Section *Macrantherae*, Series *Incrassatae*. It appears to be closest to *Eucalyptus Forrestiana* Diels, from which it differs essentially in the irregular ribs of the calyx and fruit which are indefinite in number. It also shows an affinity to *E. angulosa* Schau, differing amongst other features in the pyriform fruit and solitary flower on the long pendant peduncle, and the shorter operculum. The plant is of considerable decorative value because of its habit, deep glossy foliage, and strikingly scarlet buds and fruits, in which it bears a certain resemblance to *E. Forrestiana* Diels.

I have named this species in honour of Theodore Norman Stoate, Senior Assistant Conservator of Forests in Western Australia, whose interest in the forest flora of South-Western Australia has resulted in the acquisition of several interesting specimens for the State Herbarium, and who first collected fruits of this tree.

The type specimen is in the State Herbarium.

***Eucalyptus mitrata*** Gardner sp. nov.

This name is proposed in place of *Eucalyptus coronata* Gardner, described in this Journal, vol. xix 86 (1933). The name *E. coronata* was used by Tausch, in Herb. Bauer, Ferd, Bauer in Herb. Vind. ex Maiden, Bull. L'Her. Boiss ii. 570 (1902). It is a synonym for *E. tereticornis* Sm.

